

LISTING OF CLAIMS:

Please amend the claims of the application as set forth below.

1. (Currently amended) A method for the reduction or treatment of radiation injury comprising the step of orally administering to a human prior to expected exposure to radiation, during exposure to radiation or after exposure to radiation, a composition which comprises an amount of one or more compounds selected from the group consisting of vitamin D₃, 1(S), 3(R)-dihydroxy-20(R)-(1-ethoxy-5-ethyl-5-hydroxy-2-heptyn-1-yl)-9, 10-seco-pregna-5(Z), 7(E), 10 (19)-triene, cholesterols, 7-dehydrocholestrol, 1, 25-dihydroxyvitamin D₃, and 25-hydroxycholecalciferol, calcitriol, metabolites thereof, and pharmaceutically acceptable salts thereof, which is effective to inhibit at least one of cell differentiation and cell proliferation which is effective, when administered orally, to inhibit at least one of cell differentiation and cell proliferation, and an effective amount of one or more antioxidants selected from the group consisting of ascorbic acid, dehydroascorbic acid, ascorbic acid esters, Ester-C®, vitamin A, esters of vitamin A, vitamin E, esters of vitamin E, α-lipoic acid, carotenoids, chlorophyllin, coenzyme Q10, glutathione, green tea polyphenols, aldonic acids, aldono-lactones, aldono-lactides, pharmaceutically acceptable salts of each of the foregoing antioxidants, superoxide dismutase catalase, glutathione peroxidase and methionine reductase.
2. (Currently amended) A method as claimed in claim 1, wherein the compound that inhibits at least one of cell differentiation and cell proliferation is selected from the group consisting of ~~vitamin D₃, vitamin D₃ analogs, compounds that may be converted or metabolized into vitamin D₃ in the human body~~, and metabolites thereof.
3. (Currently amended) A method as claimed in claim 1, wherein the one or more compounds that inhibit at least one of cell differentiation and cell proliferation are selected from the group consisting of: ~~vitamin D₃, 1, 25-dihydroxyvitamin D₃, 1(S), 3(R)-dihydroxy-20(R)-(1-ethoxy-5-ethyl-5-hydroxy-2-heptyn-1-yl)-9, 10-seco-pregna-5(Z), 7(E), 10 (19)-triene, and other vitamin D₃ derivatives which inhibit at least one of cell differentiation and cell proliferation, and pharmaceutically acceptable salts thereof~~.

4. (Previously presented) A method as claimed in claim 1, wherein the one or more antioxidants are selected from the group consisting of: ascorbyl palmitate, ascorbic acid, vitamin A, vitamin A ester, vitamin E, vitamin E ester, α -lipoic acid carotenoid, chlorophyllin, chlorophyllin salt, coenzyme Q10, glutathione, galangin, rutin, luteolin, morin, fisetin, silymarin, apigenin, gingkolides, hesperitin, cyanidin, citrin, curcuminoid, and pharmaceutically acceptable salts thereof.

5. (Currently amended) A method as claimed in claim 1, wherein the compound that inhibits at least one of cell differentiation and cell proliferation comprises vitamin D₃, and the antioxidant comprises ~~ascorbyl palmitate, curcumin, vitamin A palmitate, vitamin E, α -lipoic acid, green tea polyphenol, and chlorophyllin.~~

6. (Currently amended) A method as claimed in claim 1 wherein the antioxidant comprises one or more ~~antioxidant enzymes~~ antioxidants selected from the group consisting of superoxide dismutase catalase, glutathione peroxidase and methionine reductase.

7. (Currently amended) A method as claimed in claim 1, wherein the composition further comprises at least one ~~compound~~ flavonoid or flavonoid derivative selected from the group consisting of: ~~flavonoids and flavonoid derivatives~~ 1,2,3,6-tetra-O-gallyol- β -D-glucose; 2'-O-acetylacetoside; 3,3',4-tri-O-methyl-ellagic acid; 6,3',4'-trihydroxy-5,7,8-trimethoxyflavone; 6-hydroxy-luteolin; 6-hydroxykaempferol-3,6-dimethyl ether; 7-O-acetyl-8-epi-loganic acid; acacetin; acetoside; acetyl trisulfate quercetin; amentoflavone; apigenin; apigenin; astragalin; avicularin; axillarin; baicalein; brazilin; brevifolin carboxylic acid; caryophyllene; chrysin-5,7-dihydroxyflavone; chrysoeriol; chrysosplenol; chrysosplenoside-a; chrysosplenoside-d; cosmoisin; δ -cadinene; dimethylmussaenoside; diacetylcurcumin; diosmetin; dosmetin; ellagic acid; ebinin; ethyl brevifolin carboxylate; flavocannibiside; flavosativaside; genistein; gossypetin-8-glucoside; haematoxylin; hesperidin; hispiduloside; hyperin; indole; iridine; isoliquiritigenin; isoliquiritin; isoquercitrin; jionoside; juglanin; kaempferol-3-rhamnoside; kaempferol-3-neohesperidoside; kolaviron; licuraside; linariin; larinin; lonicerin; luteolin; luetolin-7-glucoside; luteolin-7-glucoside; luetolin-7-glucuronide; macrocarpal-a; macrocarpal-b; macrocarpal-d; macrocarpal-g; maniflavone; methy scutellarein; naringenin; naringin;

nelumboside; nepetin; nepetrin; nerolidol; oxyayanin-a; pectolinarigenin; pectolinarin; quercetagetin; quercetin; quercimertrin; quercitrin; quercitryl-2'' acetate; reynoutrin; rhamnetin; rhoifolin; rutin; scutellarein; sideritoflavone; sophoricoside; sorbarin; spiraeoside; trifolin; vitexin; and wogonin..

8. (Canceled)

9. (Original) A method as claimed in claim 7, wherein the flavonoids and flavonoid derivatives are selected from the group consisting of: quercetin, quercetin, myricetin, kaempferol and myrecetin.

10. (Previously presented) A method as claimed in claim 1, wherein the composition further comprises selenium.

11. (Original) A method as claimed in claim 1, wherein the composition further comprises one or more ingredients selected from the group consisting of organic germanium, Korean ginseng, an extract of Korean ginseng, American ginseng, an extract of American ginseng, Siberian ginseng and an extract of Siberian ginseng.

12. (Currently amended) A method as claimed in claim 1, wherein the composition further comprises one or more ingredients selected from the group consisting of anti-inflammatories, and B-complex vitamins.

13. (Currently amended) A method as claimed in claim 1, wherein a ratio of the amount of the compound that inhibits at least one of cell differentiation and cell proliferation to the amount of antioxidant is from about 200 IU per gram of antioxidant to about 3 million IU per gram of antioxidant.

14. (Previously presented) A method as claimed in claim 1, wherein a ratio of the amount of the compound that inhibits at least one of cell differentiation and cell proliferation to the amount

of antioxidant is from about 1800 IU per gram of antioxidant to about 1 million IU per gram of antioxidant.

15. (Previously presented) A method as claimed in claim 1, wherein a ratio of the amount of the compound that inhibits at least one of cell differentiation and cell proliferation to the amount of antioxidant is from about 5000 IU per gram of antioxidant to about 200,000 IU per gram of antioxidant.

16. (Previously presented) A method as claimed in claim 1 further comprising the step of applying to an area of skin before, during or after exposure to radiation, a topical composition which comprises an amount of one or more compounds that inhibit at least one of cell differentiation and cell proliferation which is effective, when administered topically in the topical composition, to inhibit at least one of cell differentiation and cell proliferation, and an effective amount of one or more antioxidants, formulated in a pharmaceutically acceptable topical carrier for a topical composition.

17. (Previously presented) A method as claimed in claim 16, wherein the pharmaceutically acceptable topical carrier comprises a sufficient amount of at least one hydrophilic ointment base to form a topical composition.

18. (Previously presented) A method as claimed in claim 17, wherein the pharmaceutically acceptable topical carrier further comprises a sufficient amount of a panthenol selected from D-panthenol and DL-panthenol to promote penetration of one or more of the antioxidants and compounds which inhibit at least one of cell differentiation and cell proliferation into the skin.

19. (Original) A method as claimed in claim 16, wherein the pharmaceutically acceptable topical carrier comprises hydroxymethyl cellulose.

20. (Original) A method as claimed in claim 16, wherein the pharmaceutically acceptable topical carrier comprises an acrylic copolymer dissolved in polyethylene glycol.

21-37. (Canceled)

38. (New) A method as claimed in claim 1, wherein the composition comprises vitamin D₃.

39. (New) A method as claimed in claim 1, wherein the composition comprises chlorophyllin.

40. (New) A method as claimed in claim 1, wherein the composition comprises α -lipoic acid.

41. (New) A method as claimed in claim 40, wherein the composition comprises α -lipoic acid.

42. (New) A method as claimed in claim 1, wherein the radiation injury is caused by one or more of proton radiation, fluoroscopic radiation, alpha radiation, beta radiation and gamma radiation.